

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
GALVESTON DIVISION

KIRBY INLAND MARINE, LP	§	
	§	
v.	§	C.A. NO. 3:19-cv-00207
	§	
FPG SHIPHOLDING PANAMA	§	
47 S.A., K LINE ENERGY SHIP	§	
MANAGEMENT,	§	
and the VLGC GENESIS RIVER, <i>in rem</i>	§	

IN THE MATTER OF KIRBY INLAND	§	
MARINE, LP, in a cause for exoneration	§	Rule 9(h) - Admiralty
from or limitation of liability	§	

Consolidated with

IN THE MATTER OF THE	§	
COMPLAINT OF FPG SHIPHOLDING	§	
PANAMA 47 S.A. SHIP NO. 138 CO.	§	
LTD., ET AL, in a cause for exoneration	§	Rule 9(h) - Admiralty
from or limitation of liability	§	

**BW VLGC LIMITED AND BW FLEET MANAGEMENT AS'
POST-TRIAL BRIEF**

I.

GENESIS RIVER ADMITS FAULT FOR THE COLLISION

1. In deciding this case, this Court must start from the fact that the Genesis River Interests are responsible for the collision between its vessel and tow of the *Tug Voyager* on May 10, 2019. They have admitted it; their own counsel;

their retained liability expert; and, even their own Master of the *Genesis River*, concede liability:

So, sort of in conclusion, Your Honor, ***we do recognize that the GENESIS RIVER does share responsibility in this collision.***

(Trial Transcript – Day 1 at p.47, ll. 4-6; Opening Statement of Genesis River.) (emphasis added.)

Q: Do you have any criticisms of GENESIS RIVER?

A: Yes. Of course I do.

Q: What are they?

A: All right. Two primarily. One is, because the vessel was loaded to a flat keel, it was more difficult to handle . . .

The other ***major objection I would have is, I believe that their speed, when they met the BW OAK and when they made the turn at 75 and 76, was more excessive than was necessary.*** It should have been slower to maintain better control of the vessel so that the hydrodynamic forces that affected the vessel—and at this point I’m referring primarily to the force of bank effects, bank suction, bank cushion, kind of exaggerated by the shoaling that was present. ***If the vessel had been traveling at a slower rate of speed, that effect would have been reduced.***

(Trial Tr. – Day 3 at p. 128, ll. 7-24; Capt. Stephen Richter.) (emphasis added.)

Q: And did he ask you anything about how this incident could be—how you could prevent this accident from happening again in that interview?

A: Yes, he did ask me.

Q: What did you tell him?

A: In general, I told him that—why it took place and what—what our mistakes—or what we are lacking.

Q: And what were those things?

A: *It was—the radars, ECDIS, and the speed.*

* * *

A: *Because if the radar and ECDIS would have been on, we could have seen the situation in a—more rapidly.*

* * *

Q: Why did you cite the speed as something that could be—that you raised with the superintendent you were interviewed by on May 10th?

A: *The speed in the sense of we know that if the—at high speed, if you do take a turn, it becomes—it does not—to control the ship again is a little bit of a problem.*

(Deposition of Capt. Barnes at p. 47, ll. 20-25 to p. 48, ll. 1-4, 12-14, 20 to 25 to p. 49, l. 1.) (emphasis added.)

II. RELIEF REQUESTED

2. This Court should decide that not only do the Genesis River Interests “share responsibility” for this collision, but that they are 100 percent at fault. BW VLGC Limited and BW Fleet Management AS respectfully request that this Court reach the following conclusions in this case:

- BW VLGC Limited and BW Fleet Management AS (collectively “BW Interests”) and the *LPG/C BW Oak* (“BWO”) have no fault or responsibility for the collision that occurred between the *VLGC*

Genesis River (“GR”) and a loaded barge being pushed by the *Tug Voyager* on May 10, 2019 in the Houston Ship Channel.

- The BWO did not violate Rule 9 of the Inland Navigation Rules at any time prior to, during or after its meeting and passing with the GR.
- The GR bears sole fault and is 100 percent responsible for the collision with the *Voyager* tow and all resulting damages.

3. For this Court not to reach these conclusions, it would have to disregard the great weight and preponderance of the evidence and testimony submitted. In fact, this Court would have to accept the testimony of one witness—GR interests’ paid litigation expert from Pennsylvania, with no pre-collision experience on the Houston Ship Channel (“HSC”)—to the exclusion of every fact and liability expert witness¹:

Witnesses with no criticism of <i>BW Oak</i>	Witness Critical of <i>BW Oak</i>
Capt. Charpentier – Conning pilot of GR	Capt. Stephen Richter – GR expert
Capt. Barry Holland – Pilot aboard GR	
Capt. Kevin Barnes – Master of GR	
Santosh Badgujar – Chief Officer of GR	
Guarav Upadhyay – Second Officer of GR	
Severo Montero – Able Seaman on GR	
Yzhar Yasona – Ordinary Seaman on GR	
Aneesh Mijar – Cadet on GR	

¹ The remaining witnesses had no opinion regarding the *BW Oak*. The opinions of Prof. Paul Slavounos on hydrodynamics do not go to liability.

Capt. Kent Barton – Pilot of BWO	
Capt. Venkatesh Ramakrishnan, Master of BWO	
Vistasp Mandviwalla, Second Officer of BWO	
Capt. Steve Cunningham – Kirby liability expert	
Capt. Kevin Highfield – BWO liability expert	
Capt. Michael Lawson – BWO pilotage expert	

4. Despite the overwhelming evidence of the GR’s negligence and statutory violations, the GR Interests have attempted to manufacturer some liability on the BWO through a non-local expert who based his opinions not on the evidence from the actual witnesses to the event, but rather entirely on his *interpretation* of the vessels’ electronic data. Capt. Richter’s opinions are the classic conclusory, *ipse dixit* testimony this Court should be unwilling to accept.

III. BWO AND GR EXECUTED A TEXTBOOK MEETING

5. Fourteen witnesses in this case—eleven of whom were actually aboard the BWO or GR at the time—have testified that the meeting between the BWO and GR was “textbook” or “normal” or that they had “no criticism” of the BWO.

6. There is no dispute that the GR agreed to a port-to-port passing with the in-bound, in-ballast (no cargo/light draft) BWO. (Trial Tr. – Day 4 at p. 9, ll. 4-13; p.12, ll. 17-22, Capt. Kent Barton.) Capt. Barton, a 24-year Houston pilot

with 5,500 HSC transits, was piloting the BWO. (*Id* at p. 7, ll. 20-23; p. 8, ll. 2-4.) Capt. Jason Charpentier, a 12-year Houston pilot with about 1,500 HSC transits, was conning pilot of the GR. (BW Exhibit No. 74.)

7. A “centerline approach” or at least the principles of a “centerline approach” applied to BWO’s meeting with GR. (Trial Tr. – Day 2 at p. 34, ll. 13-18, Capt. Cunningham; Day 3 at p. 37, ll. 15-17, Capt. Barton; Day 4 at p. 87, ll. 6-21, Capt. Highfield.) The vessels will maintain the centerline of the channel; then, at a distance of around 0.60 miles, each will turn to starboard to align on their respective starboard sides. As they pass port-to-port, they experience suction that the pilots use counter-helm orders to control. Once the vessels pass stern-to-stern, the interaction helps them re-align back in the channel. (Trial Tr. – Day 2 at p. 32, ll. 7-25 to p. 33, ll. 1-25 to p. 34, ll. 1-18, Capt. Cunningham; Day 4 at p. 22, ll. 2-5, Capt. Barton; Day 4 at p. 87, ll. 6-21, Capt. Highfield; BW Exhibit No. 76.)

Fig. 28 Passing — Phase 1

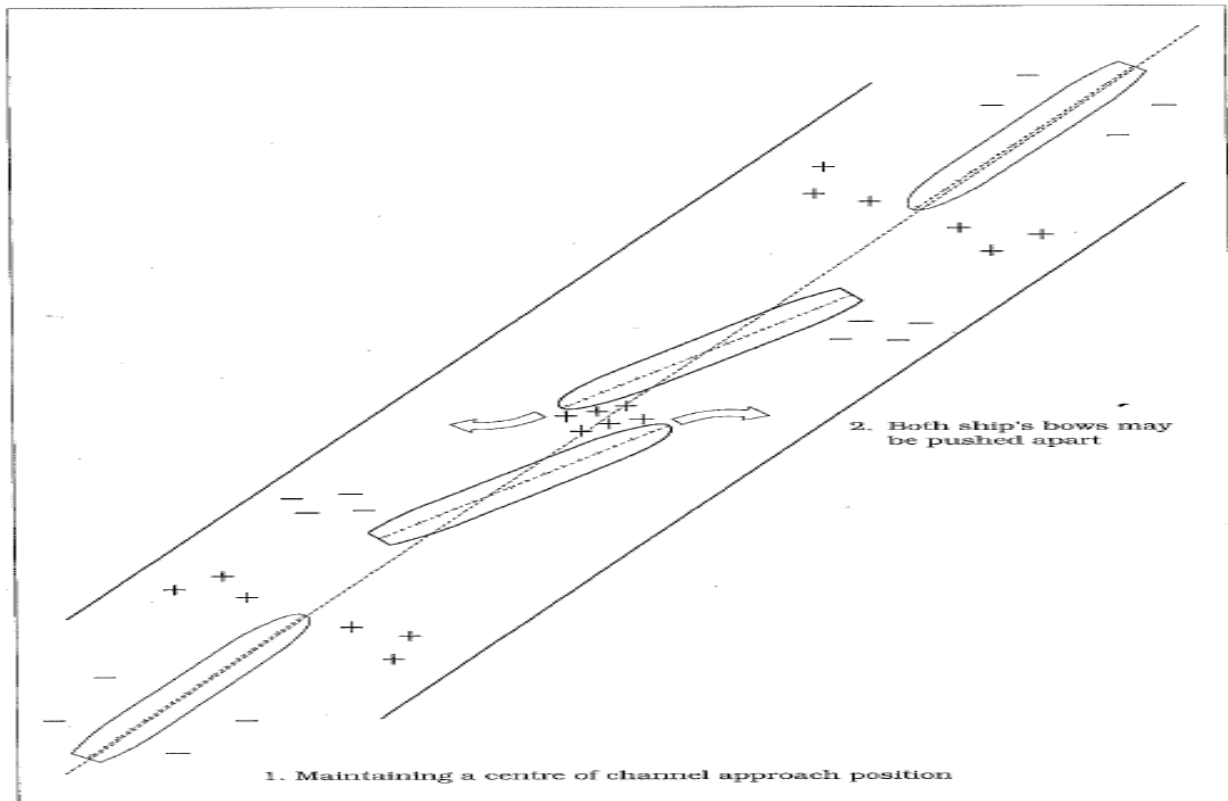


Fig. 29 Passing — Phase 2

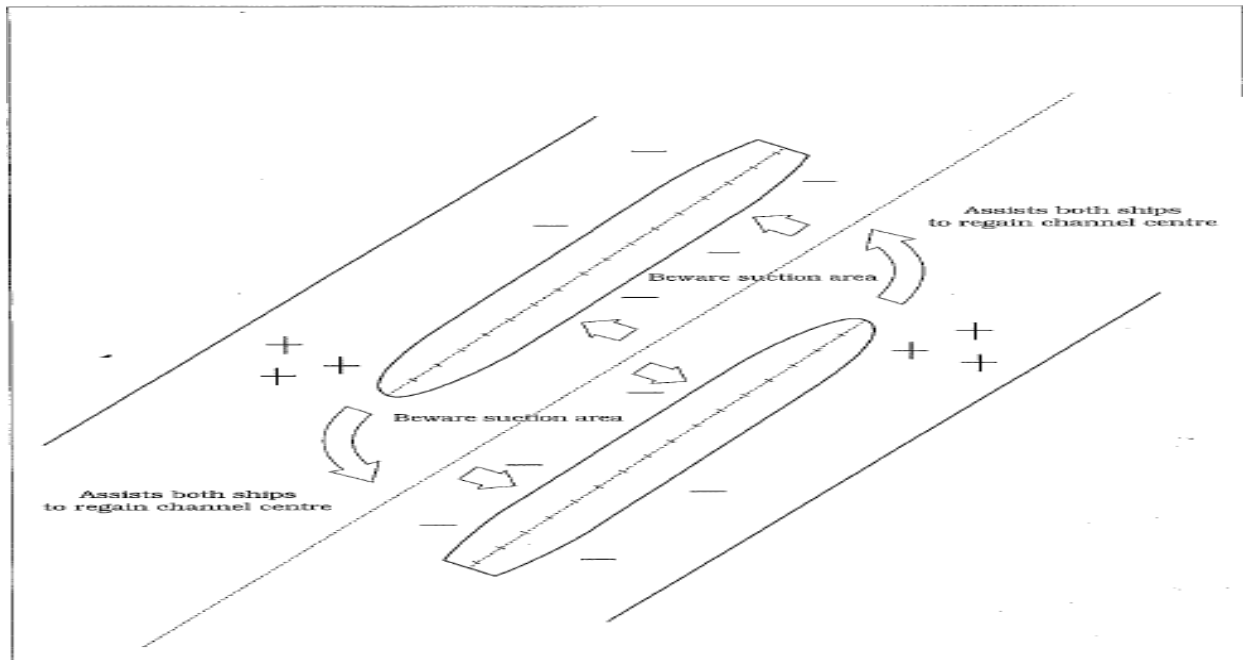
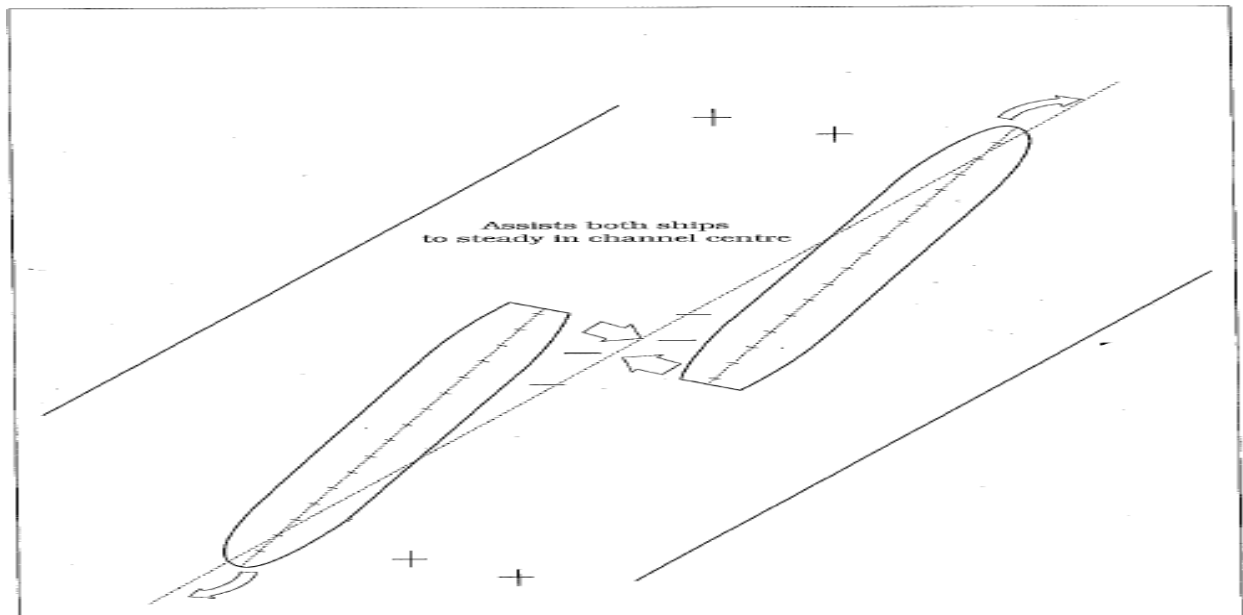


Fig. 30 Passing — Phase 3

(BW Exhibit No. 76.)

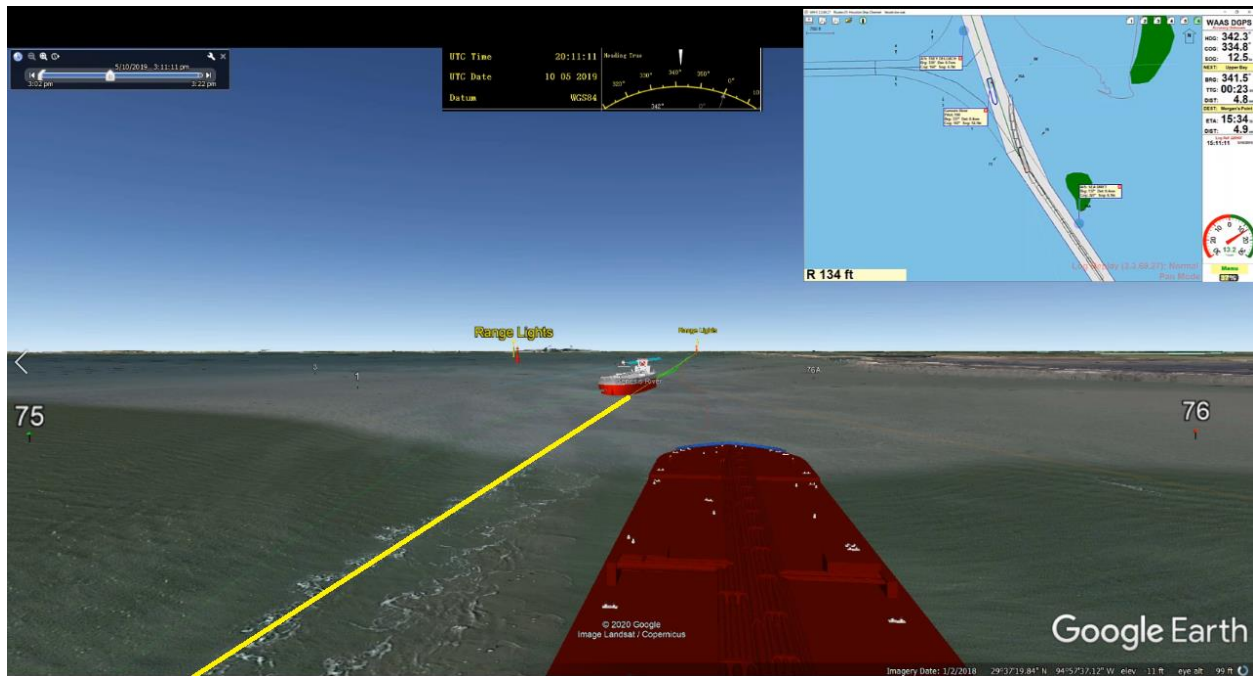
8. Consistent with that approach, the evidence conclusively demonstrates that Capt. Barton was well into his turn to starboard when the BWO and GR were 0.7 nautical miles apart. As depicted in the below screenshot from the BWO's PPU, Capt. Barton has the BWO turning almost 20 degrees to starboard (see rudder indicator in lower right corner) and the vessel projection demonstrates a predicted course to the starboard side of the channel to set up for the meeting on the straightaway above the turn at 75/76.² (Trial Tr. – Day 4 at p. 16, ll. 1-4.)

² The vessel projection off the bow demonstrates the direction of the vessel—which reflects a turn to starboard. GR's counsel's reliance on a "red vector" as indicating the vessel's direction is misleading and rejected by Capt. Barton. (Trial Tr. – Day 4 at p. 42, ll. 10-19; p. 43, ll. 17-25, Capt. Barton.)



(Screenshot from BW Exhibit No. 1.)

9. When the vessels are 0.3 nautical miles apart, the BWO has completed its turn to get on the next “reach” of the channel and the PPU resets to reflect that BWO is 134 feet to the right of the centerline *on the reach where it will meet the GR*. As is evident on the screenshot below, it is the GR that is “hugging” the centerline while the BWO is clearly to the right of it. The suggestion that the BWO is “squeezing” or “forcing” GR to its starboard edge of the channel is objectively false.



(Screenshot from BW Exhibit No. 79) (Emphasis on centerline added.)

10. At no point during the approach does Capt. Charpentier ever reach out to Capt. Barton to: i) express any concern about the meeting; ii) ask if Capt. Barton or the BWO could provide more room; or iii) say that GR's turn was being delayed by BWO's position in the channel. (Trial Tr. - Day 4 at p. 13, ll. 11-25 to p. 14, ll. 1-2, Capt. Barton.) In fact, Capt. Charpentier—whose pilot license was under review for this collision and had every reason and multiple opportunities to fault the BWO—had no criticism of Capt. Barton or the BWO with respect to the meeting and passing that occurred between their respective vessels. (Deposition of Capt. Charpentier at p. 133, ll. 9-18.)

11. There is no criticism of the BWO because the vessels completed what has been universally described under oath by every Houston Pilot aboard either vessel as a “textbook” meeting on the straightaway north of beacons 75-76.

Capt. Jason Charpentier

Q. You don’t have any problems negotiating past the BW OAK, right?

A. Right.

(Deposition of Capt. Charpentier at p. 75, ll. 4-14.)

* * *

Q: But – but you’ve given your testimony now under oath several times related to this collision, correct?

A: Yes.

* * *

Q: *Okay. And in each of those instances, you were asked directly whether you had any criticism of either the BW OAK or its pilot Captain Barton with respect to the meeting and the passing that you executed with them prior to the collision. Do you recall those questions?*

A: *Yes, I do.*

Q: *And you have no criticism of the BW OAK or Captain Barton with respect to the meeting and passing that occurred, correct?*

A: *No criticism.*

Q: *In fact, on several occasions you’ve described the meeting and passing with the BW OAK as a “textbook meeting and passing.” Do you recall that?*

A. Yes.

Q. *You stand by that testimony today, don't you?*

A. *I do.*

Q. Okay. *And if there's an allegation that some -- made in this lawsuit that the BW OAK somehow embarrassed or interfered or impeded the navigation of the GENESIS RIVER, you absolutely reject that, don't you?*

A. *I do.*

(*Id.* at p. 132, ll. 14-25; p. 133, ll. 1-25; p. 134, ll. 1-5; p. 135, ll. 20-22.) (emphasis added).

Capt. Barry Holland

Q. All right. You have had the opportunity, based on your review of these documents and videos, to -- to observe the meeting and passing between the GENESIS RIVER and the BW OAK, correct?

A. Yes, sir.

Q. Okay. *Based on your 35 or -- actually, almost 40 years of sailing experience and 25 years as a pilot, you would classify that meeting as a textbook meeting, correct?*

A. *Yes, sir.*

(Deposition of Capt. Holland at p. 128, ll. 15-24.) (emphasis added)

Capt. Kent Barton

Q: There have been a number of opinions given in the case by Charpentier, Holland—they have both given various sworn testimonies—that this was a perfect passing. Capt. Cunningham, the navigation expert for Kirby, has described it as a perfect or textbook passing.

Is what we saw that you just walked through with the Court, do you consider that to be a good passing?

A: *Yes, I do.*

Q: *If somebody wanted to use the word “textbook” to describe it, for two big ships like this meeting on the Houston Ship Channel, would you agree or disagree?*

A: *I would agree.*

(Trial Tr. – Day 4 at p. 25, l. 25 to p. 26, ll. 1-11, Capt. Barton.) (emphasis added).

12. Between these three pilots, they have combined to transit the HSC 12,750 times. (BW Exhibit 74; Trial Tr. – Day 4 at p. 8, ll. 2-4, Capt. Barton.) All have testified multiple times under oath that GR and BWO executed a “good,” “textbook” meeting and passing. Further, BW Interests’ pilotage expert, Capt. Michael Lawson similarly testified that a “textbook” meeting and passing occurred. (Deposition of Capt. Lawson at p. 59, ll. 23-25 to p. 60, ll. 1-5.) Capt. Lawson was a Houston Pilot for 35 years before retiring and completed 12,000 transits of the HSC. (*Id.* at p. 7, ll. 6-8; BW Exhibit No. 74.)

13. While Capt. Richter is the only navigation expert in this case critical of the BWO, he conceded at trial that he has only transited the HSC *three times* as a paid expert in this case and that the Houston Pilots *were better qualified than him to comment on transiting the HSC:*

Q: You understand that between those pilots, we’re talking about basically seven master mariners; is that right?

A: I don’t remember that they are all master mariners, but yes.

Q: Well over 30,000 transits of the Houston Ship Channel?

A: Yes, sir.

* * *

Q: *Do you remember me asking you when I took your deposition if you would agree with me that any of those pilots were better qualified to talk about transiting the Houston Ship Channel than you?*

A: *Transiting the channel? Yes.*

Q: *All right. And you agreed with me that that they were better qualified to comment on transiting the Houston Ship Channel than you?*

A: *Yes, sir.*

(Trial Tr. – Day 3 at p. 99, ll. 8-14; p. 139, ll. 1-22, Capt. Richter.)

14. Moreover, the navigation experts retained by Kirby and the BW Interests who have a combined 36 years between them working as maritime consultants in Houston likewise agree that the GR and BWO executed a “perfect” and “textbook” passing:

Capt. Steven Cunningham

Q: *Did you find anything unusual in the passing of the BW OAK and GENESIS RIVER?*

A: *No. That was a perfect passing maneuver.*

* * *

Q: *Okay. Is there anything about this meeting and how it’s shaping up that appears unusual or out of the ordinary based on a centerline approach?*

A: *No. It’s, in fact, very, very typical. A perfect position.*

* * *

Q: If the pilots aboard each of these vessels, who I think have a combined between the four of them had in excess of 20,000 transits of the Houston Ship Channel, all testified under oath multiple times that this was a textbook meeting and passing, do you have any reason to disagree with that?

A: No.

Q: Do you have any evidence to suggest that this was not a textbook meeting and passing or have you seen any evidence?

A: No.

(Trial Tr. - Day 1 at p. 60, ll. 17-23; p. 86, ll. 3-5; p. 175, ll. 24-25 to p. 176, ll. 1-2; Day 2 at p. 40, ll. 10-15; p. 43, ll. 10-25, Capt. Cunningham; BW Exhibit Nos. 1, 62, and 64.)

Capt. Kevin Highfield

Q: And how would you characterize this meeting and passing of the BW OAK and the GENESIS RIVER?

A: Well, I would defer to the testimony from all the pilots involved. They say it was textbook, and I have to agree with that. They are both well on their side of the channel with plenty of room and no cause for concern expressed by either pilot or captain and couldn't be any better, really.

(Trial Tr. – Day 4 at p. 89, ll. 17-24; BW Exhibit Nos. 60, 79.)

15. The following officers and crew, who comprised the bridge teams for each of the vessels, also testified under oath that nothing about the meeting and passing of the BWO and GR appeared unusual or abnormal:

- GR's Chief Officer – No criticism of the maneuvering of the BWO during the meeting and passing. (Deposition of Santosh Badgujar at p. 247, ll. 17-23.)
- GR's Second Officer – GR and BWO executed a “normal meeting” and the distance between the vessels was “fine” based on his prior 15-20 transits of the HSC. (Deposition of Guarav Upadhyay at p. 210, ll. 18-25.)
- GR's Able Seaman – GR and BWO executed a normal passing. (Deposition of Severo Montero at p. 21, ll. 17-25 to p. 22, l. 1.)
- GR's Ordinary Seaman – GR and BWO executed a normal meeting based on his experience. (Deposition of Yzhar Yasona at p. 79, ll. 21-24.)
- GR's Cadet – The passing was normal. (Deposition of Aneesh Mijar at p. 25, ll. 22-25 to p. 26, ll. 1-8.)
- BWO's Master – Nothing was unusual about the meeting between BWO and GR based on his 50-plus meetings in the HSC. (Deposition of Capt. Venkatesh Ramakrishnan at p. 53, ll. 9-25 to p. 54, ll. 1-8; ll. 21-25 to p. 55, ll. 1-10; p. 59, ll. 6-25 to p. 60, ll. 1-20; BW Exhibit No. 2.)
- BWO's Second Officer – It was a “completely normal meeting and passing” based on his previous 15 transits of the HSC (Deposition of Vistasp Mandviwalla at p. 49, ll. 9-16; p. 51, ll. 1-10; p. 54, ll. 22-25 to p. 55, ll. 1-19; p. 59, ll. 5-25.)

16. Four (4) Houston Pilots, two (2) navigation experts, and seven (7) crew members from the BWO and GR have all testified in some form or another that the meeting and passing between the vessels was “textbook,” “perfect,” “routine,” or “normal.” According to Capt. Richter—*every single one of them is wrong.*

Q: So let me recap. Really, everybody is wrong except you. And let's start with Charpentier who is wrong in his testimony about the BW OAK not playing a role. He is wrong? Is that your opinion?

* * *

A: I agree that Charpentier is mistaken.

Q: And you feel the same way about Barton, correct?

A: Yes, sir.

Q: And Holland, correct?

A: Yes, sir.

Q: And Cunningham, correct?

A: Yes, sir.

Q: And Lawson, correct?

A: Yes, sir.

Q: And Highfield, correct?

A: I believe so, yes.

* * *

Q: So, again, everybody got it wrong, but you?

A: I have had the opportunity to review the available information, including the PPUs. My conclusions are as I have stated.

Q: Absolutely. And everyone who disagrees with you got it wrong?

A: I believe so.

(Trial Tr. – Day 3 at p. 244, ll. 17-25 to p. 245, ll. 1-10; p. 246, ll. 9-15)

17. According to Capt. Richter, not only are all of the witnesses who were actually on board the vessels and the local experts wrong, but so is the Houston Pilot Board Investigation and Recommendation Committee (“PBIRC”). The PBIRC conducted a hearing into the collision between the GR and *Voyager* tow in which it heard sworn testimony from Capts. Charpentier and Holland, and also considered a written brief submitted on their behalf. While the findings are not binding on the Court, it is significant to note the following findings (or lack thereof) from the PBIRC:

- Unprecedented and unknown shoaling in the vicinity of the Bayport Flare contributed to the M/T GENESIS RIVER shearing to port.
- Capt. Charpentier was unable to recover due to a poor handling ship.
- Capt. Charpentier briefly lost situational awareness which impacted his ability to consider all options available to avoid a collision.
- Capt. Charpentier was directed to attend Blue/Brownwater Class and a Bridge Resource Management class.
- ***The PBIRC made no findings and had no criticism of the BWO or Capt. Barton. No action was taken against Capt. Barton or his license.***

(BW Exhibit No. 26.)

18. Based on the great weight and preponderance of the evidence, the BWO and GR executed a routine, textbook meeting and passing in the Houston Ship Channel and the actions of the BWO did not cause or contribute to the collision.

IV.

CAPT. HIGHFIELD'S PLOTS CORRECTLY DEPICT BWO'S POSITION

19. BW Interests do not dispute that Capts. Charpentier and Barton were navigating from their respective PPUs at the time of their meeting. However, BW Interests contend that the plots prepared by Capt. Highfield more accurately depict the vessels' true positions in the channel during their meeting. (BW Exhibit No. 57.)

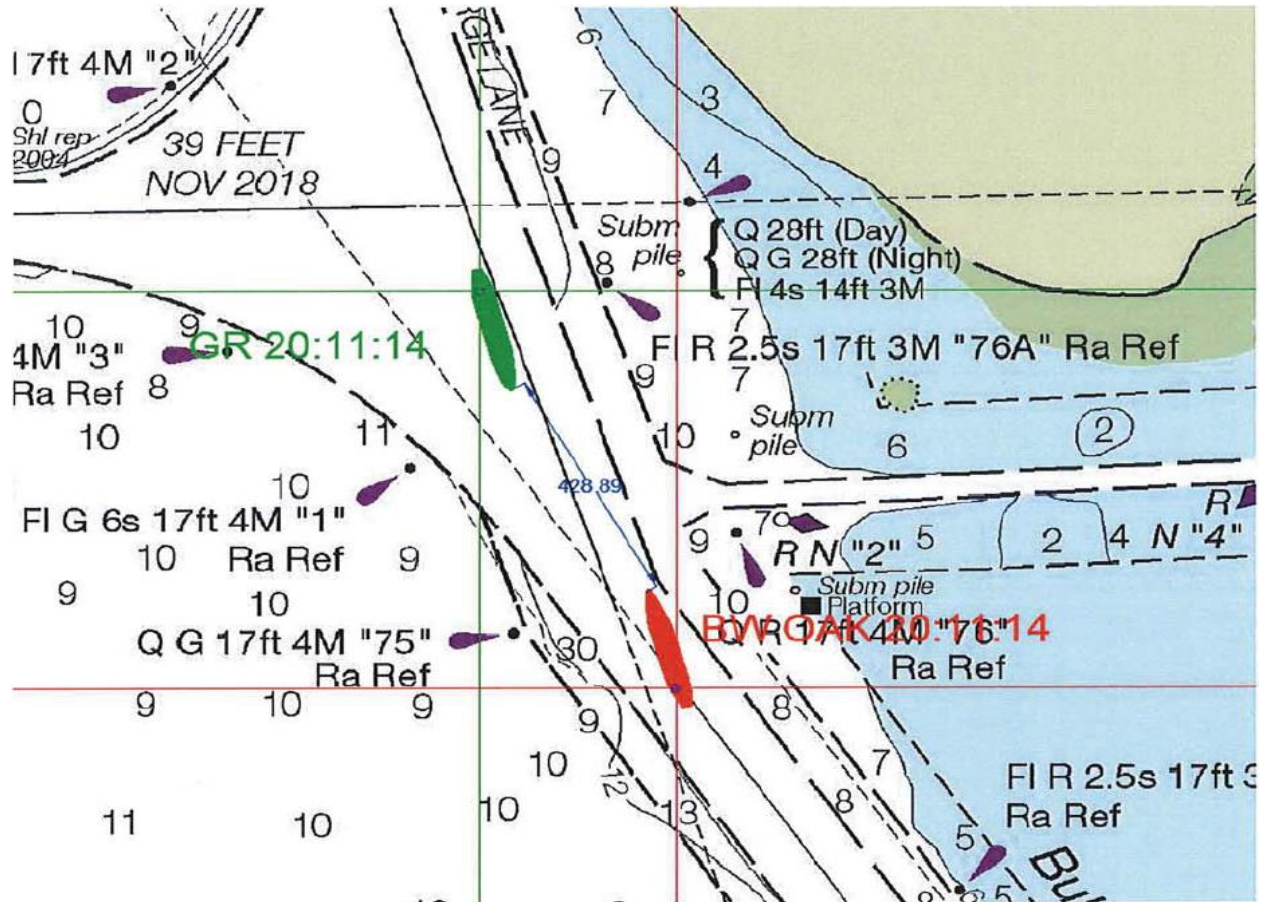
20. Capt. Highfield prepared his plots using the fixed antenna plans from *both vessels*, which allowed him to "accurately, precisely check" where each ship was in relation to channel. A pilot's PPU utilizes the pilot's own antenna which is placed on the bridge wing. The pilot then "estimates" where the ship's antenna is.

21. Capt. Highfield's plots are derived from the fixed positions of the vessels' antennas which can be calculated more accurately. Thus, while a pilot's PPU gives an approximation of a vessel's position, the more accurate depiction of the vessels' locations can be plotted to a chart from the fixed antenna positions. (Trial Tr. – Day 4 at p. 84, ll. 6-25 to p. 85, ll. 1-25 to p. 86, 1-5, Capt. Highfield; BW Exhibit Nos. 47, 48, 50, 51, and 55.)

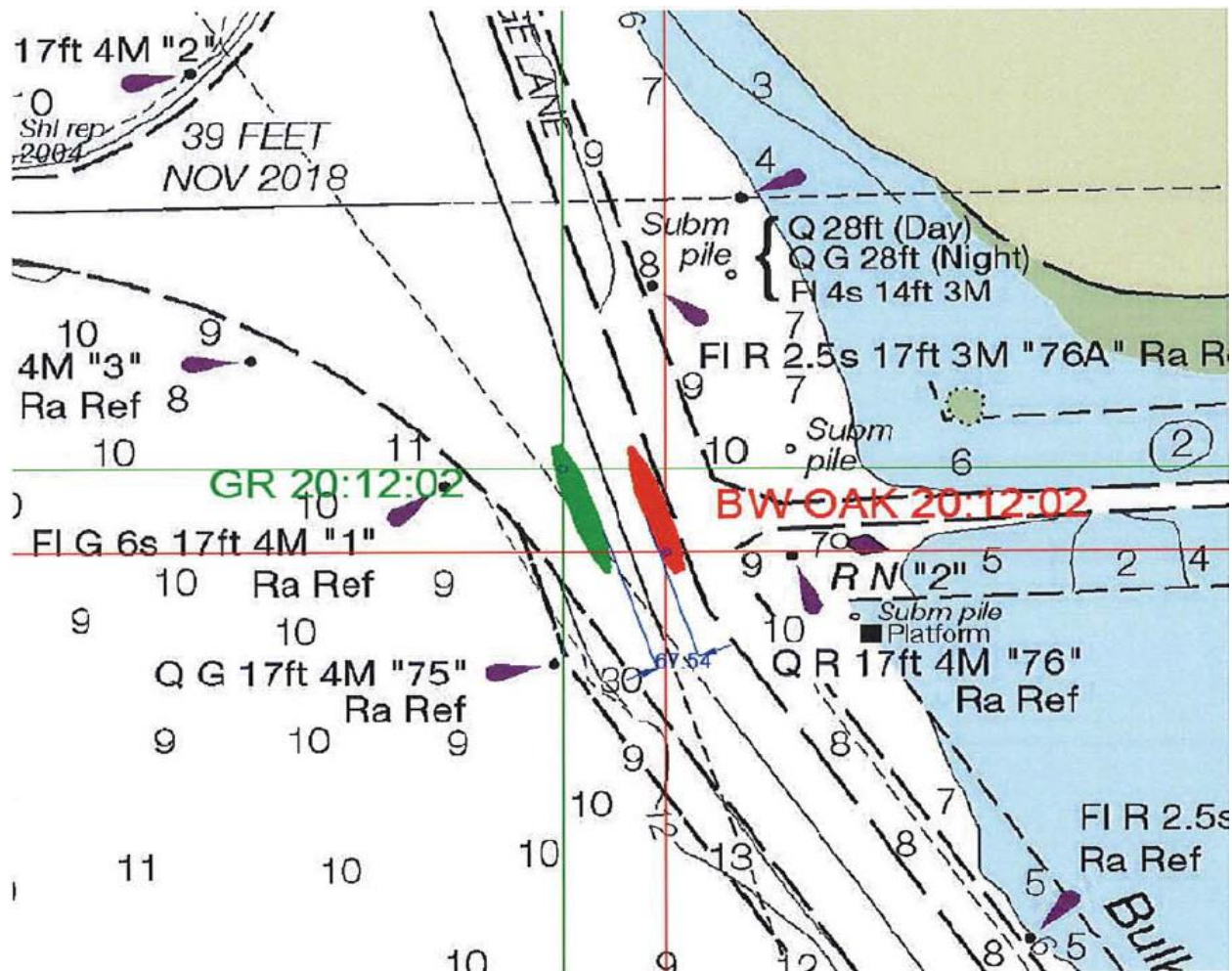
22. The methodology, accuracy and reliability of Capt. Highfield's plots have not been disputed by GR Interests either through cross-examination or by their own experts. (Trial Tr. – Day 4 at p. 128, ll. 12-25 to p. 129, ll. 1-6, Capt. Highfield.) Capt. Richter conceded that he performed no plotting of his own, nor

did he make any calculations to determine vessels' true positions in the channel.

(Trial Tr. – Day 3 at p. 185, ll. 8-25 to p. 186, ll. 1-23, Capt. Highfield.)



23. In Capt. Highfield's first plot, the BWO is lined up on its side of the channel for the Morgan's Point reach where it will meet the GR. The vessels are 428.89 meters apart (almost 0.3 miles) and the BWO is clear off the centerline to meet GR on the straightaway reach above beacons 75/76. (BW Exhibit No. 57.)



24. In this plot, the vessels are abeam of each other with separation of their port-sides of 67.54 meters (about 221 feet). Further, the BWO's starboard side is against the barge lane and it is the GR that is closer to the centerline than the BWO. (BW Exhibit No. 57.)

25. The accuracy of these plots has not been disputed. On his review of them, Capt. Richter agreed that: i) GR was much closer to the centerline than BWO; ii) BWO is "riding right along the edge of the barge lane" to its starboard side; and, iii) *there was no Rule 9 violation by the BWO*. (Trial Tr. - Day 3 at p.

183, ll. 17-25 to p. 184, ll. 1-17; p. 185, ll. 1-7; p. 187. ll. 2-4, Capt. Richter; BW Exhibit No. 57.) (emphasis added.)

26. Based on the true positions of the vessels in the channel during the meeting and passing, there can be no finding that BWO “crowded,” “squeezed,” “delayed,” “interfered with” or otherwise “embarrassed the navigation” of the GR.

V.
THE BWO DID NOT VIOLATE INLAND RULE 9

27. Capt. Richter’s conclusory assertions form the basis of the GR Interests’ argument that BWO violated Rule 9 of the Inland Navigation Rules and is presumptively at fault for the collision. This must be rejected as a matter of law and fact.

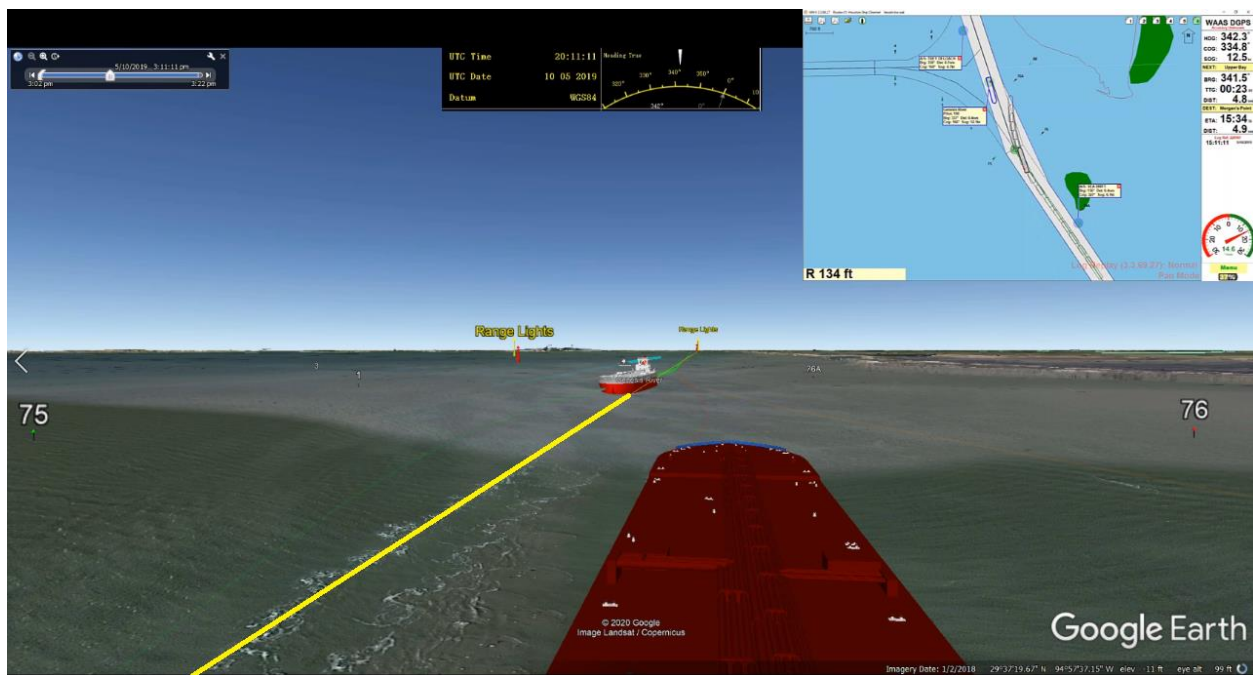
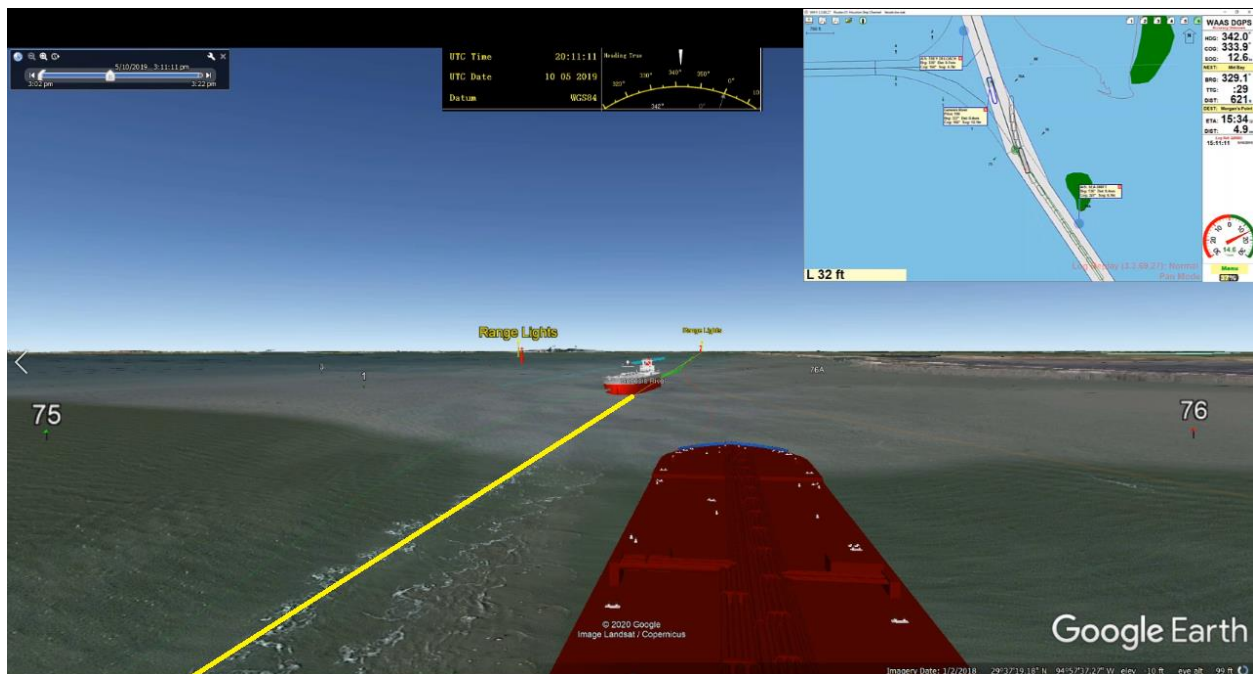
28. Rule 9(a)(i) provides that in navigating a narrow channel, a vessel shall “keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable.”

29. Rule 9(d) provides that a vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel navigating in a narrow channel or fairway.

30. GR’s contention that the BWO violated Rule 9 because its stern was partly across the centerline as it began its turn for the next reach of the channel is misleading and incorrect. There is no dispute that the BWO’s stern extended over the centerline as the vessel made its starboard turn to line up for the next reach of

the channel and to meet the GR. This is completely normal. (Trial Tr. – Day 2 at p. 35, ll. 12-25 to p. 36, ll. 1-14, p. 38, ll. 2-12, Capt. Cunningham; Day 4 at p. 42, ll. 10-19, p. 44, ll. 20-23, Capt. Barton; Day 4 at p. 93, ll. 2-15, Capt. Highfield; BW Exhibit Nos. 1, 2, 57, and 79.)

31. To put the issue in context, Capt. Highfield explained that when the BWO's stern was showing left of the centerline, the vessel was on the Upper Galveston Bay reach of the channel, below the bend at the Bayport Flare and below the Morgan's Point reach of the channel where he had agreed to meet the GR. Thus, on Capt. Barton's PPU, the centerline indicator immediately jumps from "L32" (i.e., left of centerline 32 feet) on the Upper Galveston Bay reach to "R134" within one second when his PPU recalibrates to the centerline of the Morgan's Point reach where he will meet the GR.



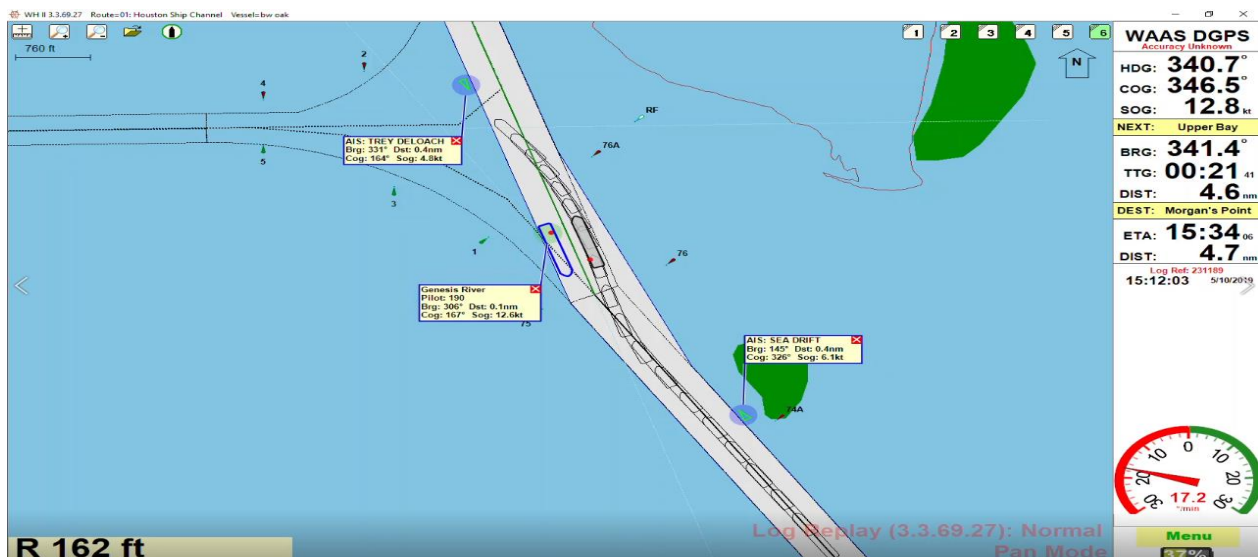
(Screenshots from BW Exhibit No. 79) (emphasis on centerline added.)

32. Capt. Highfield explained that in the above screenshots, the BWO's PPU "has now defaulted to the next step of the channel." In the top screenshot, the

BWO is left of center for the Galveston Bay reach. The bottom screenshot shows the BWO 134 feet right of the centerline for the Morgan's Point reach. Further, it is the GR that is still on the centerline as the BWO aligns to its starboard side for the meeting and passing.

33. There was no Rule 9 violation by BWO in making its turn at beacons 75/76 to align for the next reach of the channel and to meet the GR. (Trial Tr. – Day 1 at p. 189, ll. 8-10, Capt. Cunningham; Day 2 at p. 44, ll. 1-4, Capt. Cunningham; Day 4 at p. 20, ll. 11-20, p. 27, ll. 18-21, Capt. Barton; p. 101, ll. 2-5, p. 135, ll. 4-21, Capt. Highfield.)

34. At the time they are abeam of each other, BWO is 162 feet right of centerline on the PPU (screenshot below) and 221 feet apart from the GR in Capt. Highfield's plot (screenshot on p. 24 *supra*). (BW Exhibit Nos. 2, 57.)



35. There is simply no credible, objective evidence that BWO's beginning its turn with its stern across the centerline impeded or otherwise interfered with the GR's passage. Capt. Charpentier rejects such a claim and the evidence does not support it. (Deposition of Capt. Charpentier at p. 133, l. 25 to p. 134, ll. 1-5.)

36. GR Interests base their second argument that BWO violated Rule 9 on Capt. Richter's conclusory opinion that BWO should have used the "widener" to its starboard side when meeting the GR. Again, Capt. Richter ignores the evidence and interjects his own conclusions that are untethered to the actual facts. As it relates to the widener:

- Its primary function is to provide extra channel width for vessels turning into or out of the Bayport Channel Flare. (Trial Tr. – Day 4 at p. 24, ll. 5-13, Capt. Barton; Day 4 at p. 131, ll. 23-25 to p. 132, ll. 1-2, Capt. Highfield.)
- It is ultimately within the pilot's discretion to use the widener based on what is safe and practicable for the situation. There is no rule requiring use of the widener nor is mandatory that it be used for meetings and passings. (Trial Tr. – Day 4 at p. 132, ll. 3-16, Capt. Highfield.)
- The examples cited by GR Interests regarding use of the widener are inapposite to the meeting that occurred between GR and BWO. In each example, the vessels are meeting further south than where the GR and BWO met. Two of the examples were of vessels using the widener for its intended purpose of turning into Bayport. Not a single example is representative of the meeting that is at issue in this case. (Trial Tr. – Day 4 at p. 72, ll. 14-25 to p. 73, ll. 1-14, Capt. Barton; p. 79, ll. 9-25 to p. 80, ll. 1-17, Exchange between Court and counsel; p. 101, ll. 16-25 to p. 102, ll. 12, Capt. Highfield.)

37. Further, Capt. Barton gave clear, unequivocal testimony as to why it was unsafe to use the widener in this case:

Q: Ok. Why didn't you use the widener?

A: My—my reasons for not using the widener, first of all, throughout the whole meeting process, I would have been pointed at his ship the whole time. If I would have cut through where your—the triangle is on the north side or east side of center point of the turn, then I would have been pointed at his ship throughout the whole meeting process. And I think --

Q: What is the problem with that, Captain?

A: It would have been uncomfortable for both of us. I believe it would have been uncomfortable for Jason. I think it would have been really uncomfortable for me.

Q: Were there other reasons?

A: I didn't want to be up at the upper end of the widener and still way to the right and then trying to check my ship up with the outbound tow behind, the TREY DELOACH.

Q: Did you have concerns that using the widener could have caused you to sheer and perhaps place the TREY DELOACH in danger?

A: Yes. The main reason is that we met so far above the turn at 75 and -6 that I just started my turn early to be well on my side when we were abeam of each other.

(Trial Tr. – Day 4 at p. 24, ll. 16 -25 to p. 25, ll. 1-12, p. 40, ll. 1-19.)



(Screenshot from BW Exhibit No. 1 – demonstrating Capt. Barton’s concern that the BWO is at the “upper end” of the widener as its stern clears the GR and he would have to be checking up his vessel.)

38. Capt. Barton—a veteran of 5,500 HSC transits and who even acknowledged having used the widener in some prior instances—has not been challenged or refuted by any GR witness or expert. In fact, Capt. Highfield opined that Capt. Barton’s decision was entirely reasonable. (Trial Tr. – Day 4 at p. 102, ll. 1-5.)

39. At all material times on May 10, 2019, Capt. Barton positioned the BWO as far to its starboard as was safe and practicable under the circumstances. Thus, the BWO did not violate Inland Rule 9 and there is no presumption of fault on the part of the BWO.

VI.
PROF. SCLAVOUNOS'S OPINIONS CANNOT ASSIST THIS COURT

40. GR Interests' hydrodynamics expert, Paul Sclavounos, sets forth the unremarkable proposition that when two ship's meet, there is hydrodynamic interaction between them. (There is no disputing this. The issue here is that there is no evidence that the hydrodynamic interaction between the BWO and GR was anything but normal.)

41. However, Professor Sclavounos' opinions in that regard cannot assist this Court as the finder-of-fact because his methodology and analysis simply did not account for multiple relevant factors to form a reliable opinion. In order, Prof. Sclavounos confirmed the following:

- He did not take into account the trim of the GR. He assumed "level trim," but did not factor the vessel navigating down-by-the-bow or trimmed at the head. (Trial Tr. – Day 3 at p. 260, ll. 9-15, p. 262, ll. 7-12, 14-22, Prof. Sclavounos.)
- He did not do any model testing of the BWO and GR, nor did he attempt to simulate the events on the VDRs for either vessel. (*Id.* at p. 263, ll. 7-10, 18-21, p. 264, ll. 9-12.)
- Prof. Sclavounos was not provided the VDRs for either vessel. (*Id.* at p. 264, ll. 13-21.)
- He did not review the PPUs from either vessel. (*Id.* at p. 264, l. 22-25 to p. 265, l. 1.)
- He did not perform any studies of the Bayport Flare. (*See id.* at p. 265, ll. 9-12.)

- Despite concluding that the GR's rudder was "overwhelmed" by the hydrodynamic force of the BWO, he did not account for the rudder in evaluating the hydrodynamic forces exerted on the GR.³ (*Id.* at p. 265, ll. 13-23.)
- Prof. Sclavounos did no analysis of hydrodynamic effects had the GR been traveling at its passage-planned speed of six-to-eight knots.
- He did not consider or evaluate any issue such as bank effect, bank suction or bank cushion. (*Id.* at 272, ll. 12-22.)
- Prof. Sclavounos did not consider shoaling in his analysis. (*Id.* at p. 272, ll. 23-25 to p. 273, l. 1.)
- While conceding that the fully-loaded GR would have a greater hydrodynamic impact on the in-ballast BWO, he did not attempt to quantify the effect of the GR on BWO. (*Id.* at p. 276, l. 23-25 to p. 277, ll. 1-18.)
- He was unaware that his assumptions on the drafts and speeds of both the BWO and GR were incorrect. (*Id.* at p. 279, ll. 17-25 to p. 280, ll. 1-3.)

42. Ultimately, Prof. Sclavounos even conceded that he cannot assist this Court as the fact-finder with the effect of bank cushion, bank suction, or shoaling with respect to their respective influences on the GR's loss of control. In light of such a woefully deficient analysis, the BW Interests ask that the opinions of Prof. Sclavounos be disregarded in their entirety.

³ No testimony or other evidence has been adduced by GR that during the passing maneuver, that the rudder of GR was overwhelmed such that GR could not be controlled. The point at which GR lost control was after the passing maneuver with the BWO had been completed.

VII.
THE GR IS SOLELY AT FAULT FOR THE COLLISION

43. The GR loaded a full cargo of liquid propane/butane gas at Targa Terminal and prepared for an outbound transit of the HSC on May 10, 2019. (BW Exhibit No. 9.)

44. The vessel was at even keel (no trim) and a deep draft of 37.7 feet. (BW Exhibit No. 11.) Under these conditions, the GR would be less directionally stable as it would be transiting down by the bow. (Deposition of Santosh Badgajar at pp. 113, 114; Deposition of Capt. Holland at pp. 71-73.) The Passage Plan prepared by the GR set the vessel's speed for the area where GR met the BWO and location of the subsequent collision with the *Voyager* tow at six (6) to eight (8) knots. (BW Exhibit No. 9 at Appendix B p. 5; Trial Tr. - Day 1 at p. 101, ll. 19-24, Capt. Cunningham.)

45. Before departing, the GR's Master, Captain Barnes, knew that his vessel handled "sluggishly" when fully loaded. (Deposition of Capt. Barnes at p. 189, ll. 16-25 to p. 190, ll. 1-12.) However, during his Master/Pilot Exchange, Capt. Barnes failed to disclose that critical information about his vessel to the Houston Pilots. (*See id.*) Likewise, he did not discuss the GR's Risk Assessment, Passage Plan or its planned speed for the vessel with the Houston Pilots. (*See id.* at p. 82, ll. 2-25 to p. 83, ll. 1-3; Deposition of Jason Charpentier at p. 47, ll. 5-16.) Further, when the pilots asked that the GR's alarms on the radar and ECDIS

(electronic navigational chart) be silenced, the GR's crew inexplicably put those units on "stand-by."⁴ (Deposition of Capt. Barnes at p. 94, ll. 1-21 and p. 95, ll. 2-18; Deposition of Capt. Charpentier at p. 49, ll. 15-25 to p. 50, ll. 1-13.) This violated International and U.S. regulations and GR's own company procedures as the GR's bridge team would be transiting with no chart and unable to monitor the GR's position, course, and speed. (Trial Tr. – Day 1 at p. 110, ll. 21-25 to p. 112, ll. 1-12, Capt. Cunningham.)

46. Capt. Holland, a veteran Houston Pilot with 5,750 transits of the HSC, navigated the first leg of GR's transit. He recognized within his first two turns that he had a "poor handling" ship that required hard rudder commands and engine "kicks" to break "sheers" after he had met and passed other vessels. (Deposition of Capt. Holland at p. 76, ll. 20-25 to p. 77, ll. 1-24; p. 79, ll. 13-24; p. 121, ll. 18-25 to p. 122, ll. 1-19; p. 125, ll. 21-25 to p. 126, ll. 1-12.)

47. Half-way through the outbound transit, Capt. Holland handed over the conn of the GR to Capt. Charpentier. During the Pilot-to-Pilot handover, Capt. Holland advised Capt. Charpentier that the GR was a poor-handling vessel, that it was "all over the place," and required "lots of rudder." (Deposition of Capt. Holland at p. 79, ll. 4-19; p. 80, ll. 9-19.)

⁴ GR did not have paper navigational charts. The ECDIS system was their "chart." With the ECDIS on standby, GR's bridge team was not able to monitor the GR's position in the channel, approaching course alterations, nor could they observe critical details of the transit such as course and speed in the context of a navigational chart displaying the passage plan.

48. Shortly after taking the conn, Capt. Charpentier ordered the GR's engines to Full-Ahead. (Deposition of Capt. Charpentier at p. 72, ll. 6-20; p. 73, ll. 3-13.) This took the GR in excess of the speed of six-to-eight knots provided for in the GR's Passage Plan and Risk Assessment—yet, the GR's bridge team said nothing. (*Id.* at p. 73, ll. 3-13.)

49. About one minute later, despite being advised that he was taking the conn of a poor handling ship, and knowing that it was fully-loaded, and at even keel, Capt. Charpentier requested an engine increase to a “ten-minute notice,” also known as Full Sea Speed. (*See id.*) This led to an increase in speed of the GR to almost twice that provided for in the GR's Passage Plan. Yet again, the GR's bridge team said nothing and executed Capt. Charpentier's order to Full Sea Speed. (*See id.*)

50. Well after the BWO had cleared the GR's stern, GR took a sheer to port. Capt. Charpentier was unable to gain control of the vessel and it crossed the channel to the inbound or “red” side. On reaching the inbound side, the GR took another sheer and began swinging back across the channel again. Still unable to regain control, GR collided with one of the barges being pushed by the *Tug Voyager*.

51. GR's counsel, its liability expert and its own Master have admitted to the fault of the GR in causing the collision. (Trial Transcript – Day 1 at p.47, ll. 4-

6; Opening Statement of Genesis River; Day 3 at p. 128, ll. 7-24; Capt. Stephen Richter; Deposition of Capt. Barnes at p. 47, ll. 20-25 to p. 48, ll. 1-4, 12-14, 20-25 to p. 49, l. 1.)

52. Kirby's navigation expert, Capt. Cunningham attributes 100 percent of the fault for the collision to GR for the following reasons, the combination of which "resulted in the sheer of the vessel and everything else thereafter:"

- Risk assessment completely ignored;
- Passage plan completely ignored;
- Excessive speed⁵;
- Even keel trim on a full-loaded, poor-handling vessel;
- Crew fatigue; and,
- Navigation equipment (ECDIS and radars) set to stand-by.

(Trial Tr. – Day 1 at p. 96, ll. 23-25 to 97, ll. 1-25 to p. 98, ll. 1-2.)

53. The collision would not have occurred had GR transited at its passage plan speed of six to eight knots. (Trial Tr. – Day 2 at p. 45, ll. 12-21, Capt. Cunningham.)

54. BW Interests' navigation expert agreed with Capt. Cunningham, and placed 100 percent fault for the collision on the GR for following reasons:

- Unseaworthiness of the GR;
- Lack of bridge monitoring;
- Excessive speed;
- Unsafe trim that exacerbated the poor handling of the vessel; and,
- Poor decisions from Capt. Charpentier in handling the ship.

⁵ Excessive speed means (a) greater squat, (b) greater bank effect, (c) less directional stability, (d) less time to respond and (e) no reserve power for an emergency kick ahead to increase the vessel's turning capability. (Trial Tr. Day 2 at p. 44, ll. 5-18, Capt. Cunningham; Day 4 at p. 107, ll. 14-25 to p. 108, ll. 1-8, Capt. Highfield.)

(Trial Tr. – Day 4 at p. 102, ll. 18-25, p. 103, ll. 1-25, 104, ll. 1-25, p. 105, ll. 1-25, p. 106, ll. 1-25, p. 107, ll. 1-17, Capt, Highfield.)

55. This Court need not look solely at the navigational experts' opinions in this case to find sole fault on the GR, it can also look the GR Interests' own company procedures. (BW Exhibit No. 67.) In its Navigation Guidance - Houston Ship Channel, the GR Interests implemented the entirely reasonable and feasible procedures that should have been in place on May 10, 2019. Specifically, the Master is now required to be on the bridge during the entirety of the HSC transit (which was not the case on May 10, 2019); the pilots should be challenged for speeds exceeding 10 knots (which did not occur on May 10, 2019); all navigation equipment is required to remain on (which did not occur on May 10, 2019); ECDIS must be monitored during transit (which did not occur on May 10, 2019); safe speed must be maintained at all times (which did not occur on May 10, 2019); and, vessels must be trimmed by stern (which did not occur on May 10, 2019).⁶ (BW Exhibit No. 67 at pp. 2, 3, 4, 5, and 8.)

56. The overwhelming preponderance of the evidence in this case supports a finding that the GR and GR Interests are solely at fault for the collision.

⁶ Following the collision the GR's transits of the HSC have been at slower speeds (sea speed is no longer permitted) and it has been trimmed by the stern to improve vessel handling.

VIII. AUTHORITIES

57. To establish maritime negligence, a plaintiff bears the burden of proving by a preponderance of the evidence that: (1) the defendant owed the plaintiff a duty; (2) the defendant breached that duty; (3) the plaintiff sustained an injury; and (4) the breach caused the plaintiff's alleged injuries. *See Canal Barge Co. v. Turco Oak Co.*, 220 F.3d 370, 376 (5th Cir. 2000). "Establishing liability in a collision case can be eased by *The Pennsylvania* rule". *Stolt Achievement, Ltd.*, 447 F.3d at 364. *The Pennsylvania* rule provides that when a ship violates a statutory rule of navigation intended to prevent collisions, the burden rests on the ship of showing not merely that her fault might not have been one of the causes, or that it probably was not, but that it could not have been. *Transorient Navigators Co., S.A. v. M/S SOUTHWIND*, 714 F.2d 1358, 1369 (5th Cir. 1983).

58. After a review of the facts in this case, there is no credible basis for this Court to find that the BWO, its officers, crew, or its pilot, Capt. Barton: i) violated Rule 9 of the Inland Navigation Rules; and ii) were negligent in any manner for their meeting and passing of the GR that caused or contributed to the collision between the GR and *Voyager's* tow on May 10, 2019.

PRAYER

For these reasons, BW VLGC Limited and BW Fleet Management AS pray that this Court find that:

- BW VLGC Limited and BW Fleet Management AS and the *LPG/C BW Oak* have no fault or responsibility for the collision that occurred between the *VLGC Genesis River* and a loaded barge being pushed by the *Tug Voyager* on May 10, 2019 in the Houston Ship Channel.
- The *BW Oak* did not violate Rule 9 of the Inland Navigation Rules at any time prior to, during or after its meeting and passing with the *Genesis River*.
- The *Genesis River* bears sole fault and is 100 percent responsible for the collision with the *Voyager* tow and all resulting damages.

The BW Interests respectfully request all such other relief to which they might be justly entitled.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that I filed the foregoing Proposed Findings of Fact and Conclusions of Law on **March 11, 2021**, electronically, and that a true and correct copy will be served on counsel of record via the Electronic Case Filing System of the United States District Court for the Southern District of Texas, Galveston Division.

/s/ James T. Bailey

James T. Bailey